



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBW109-3501-08-115
Job Sheet 176140



Part No: RBW109-3501-08-115

Job Qty: 3 ea

Part Name: Adapter, Landing Gear Shockstruts Nitrogen Change



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 4/17/18

Job Tracking No:

Due Date: 5/21/18

Created By: Chantal Lavoie

Type: Stock

Description:

Note: DWG RBW109-3501-08-115 Rev 3 IPP Rev A 18.02.14 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	3 pcs		5/21/18	0.00	0.00	Purchasing		4/18/18/27
110	Packaging	3 pcs		5/21/18	0.00	0.00	Packaging2		4/18/18/27
120	QC	3 pcs		5/21/18	0.00	0.00	QC6		38
130	Packaging	3 pcs		5/21/18	0.00	0.00	Packaging3		APR 30 2018
140	QC21-FG	3 Ea		5/21/18	0.00	0.00	QC21	APR 30 2018	APR 30 2018

Part Op 100 - Issue P/O: 39635 MANUFACTURE RBW109-3501-08-115 AS PER DWG Supplier: METEC ***NOTE***

Descriptions: Ensure solder joint is clean of all debris. Soldered joint must hold 1500psi of nitrogen charge. Certificate of conformity is required

9-89 APR 18 2018

X3

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
RBW109-3501-08-115P	Adapter, Landing Gear Shockstruts Nitrogen Change	3 Ea (1 ea)	100-Purchasing	5066303

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	RBW109-3501-08-115P	3	0	0

Part Specifications

Specifications could not be found.

Plex 4/17/18 3:18 PM dart.lavoie.chantal



Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K64 1K7
CANADA

TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S066304



Adapter, Landing Gear Shockstruts Nitrogen Change

PART NO: RBW109-3501-08-115

Serial No/Batch: S066304

Revision:

Operation: Packaging

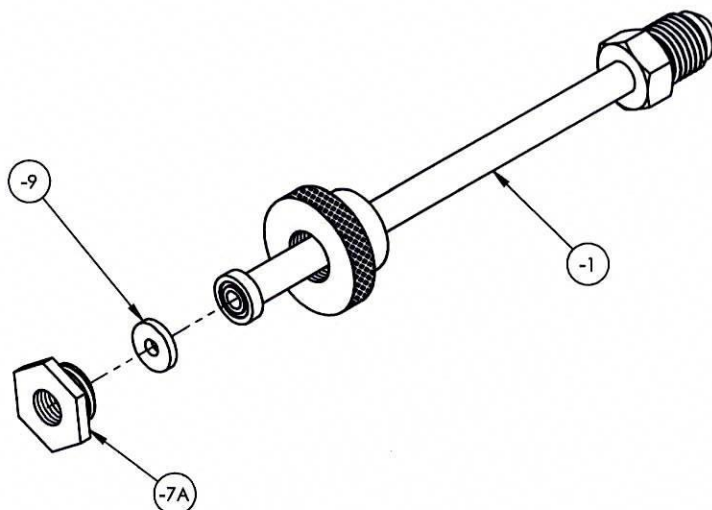
Change No:

Mfg Date: 04/27/18

Job No: 176140

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		MERGED -7, -8 & -9 INTO -7 AS BUYOUT. DELETED PAGE 4. -5 CH'D TUBE DIMENSIONS, WAS $\varnothing.180/\varnothing.250$, IS $\varnothing.210/\varnothing.280$.	9/14/2010	WP	DW
2		-5 CH'D MATERIAL FROM BRASS TO 303/304, ADDED EXTRA GASKET RELIEF. MERGED -7, -9, AND -11 INTO -7 ASSEMBLY.	9/20/2010	WP	DW
A2		CORRECTED P/N WAS RBW109-351-08-115 IS RBW109-3501-08-115. -5 CH'D ID FROM $\varnothing.115$ TO $\varnothing.156$.	6/26/2012	JAG	SE
2A		UPDATED SHEET FORMATS AND DRAFTING STANDARDS. SEPARATED -3 & -5 TO INDIVIDUAL SHTS. ADDED -7A TO BOM.	10/16/2013	CFS	RW
3	16-0208	-3 CH'D DIM WAS $\varnothing.24 \pm .001$ IS $\varnothing.242 \pm .001$ $\varnothing.25$. -5 CH'D DIM'S WAS $\varnothing.156$ IS $\varnothing.135 \pm .030$, WAS $\varnothing.240$ (S.F. -3) IS $\varnothing.240 + .000/- .002$ (S.F. -3). WAS $\varnothing.375$ IS $\varnothing.38$. DELETED NOTE 1 SHEET 1.	11/2/2016	RJC	JAG

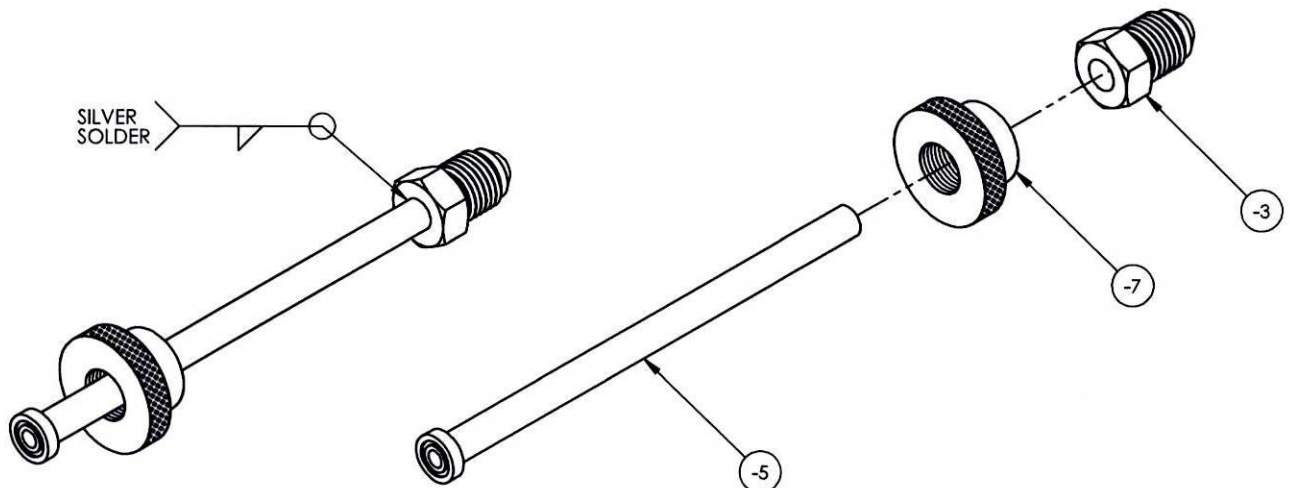


DART AEROSPACE																															
TITLE ADAPTER, L/G SHOCKSTRUTS NITROGEN CHARGE																															
DWG NO. RBW109-3501-08-115	REV 3																														
<table border="1"> <tr> <td>MAT'L</td> <td>UNLESS OTHERWISE SPECIFIED</td> </tr> <tr> <td>FINISH</td> <td>DIMENSIONS ARE IN INCHES</td> </tr> <tr> <td>SPEC</td> <td>XXX $\pm .005$ FRACTIONS $\pm 1/8$</td> </tr> <tr> <td></td> <td>.XX $\pm .01$ ANGLES $\pm .6^\circ$</td> </tr> <tr> <td></td> <td>.X $\pm .1$ SURFACES = 125</td> </tr> <tr> <td></td> <td>1. BREAK ALL SHARP EDGES</td> </tr> <tr> <td></td> <td>.018 x 48" OR .018R</td> </tr> <tr> <td></td> <td>2. DIMENSIONAL LIMITS APPLY</td> </tr> <tr> <td></td> <td>AFTER PLATING</td> </tr> <tr> <td></td> <td>3. INTERPRET DIM AND TOL PER</td> </tr> <tr> <td></td> <td>ASME Y14.6M-2009</td> </tr> <tr> <td colspan="2">USED ON MODEL</td> </tr> <tr> <td colspan="2">AGUSTA AW139</td> </tr> <tr> <td>SCALE</td> <td>DATE</td> </tr> <tr> <td>1:1</td> <td>4/23/2010</td> </tr> </table>		MAT'L	UNLESS OTHERWISE SPECIFIED	FINISH	DIMENSIONS ARE IN INCHES	SPEC	XXX $\pm .005$ FRACTIONS $\pm 1/8$		.XX $\pm .01$ ANGLES $\pm .6^\circ$		.X $\pm .1$ SURFACES = 125		1. BREAK ALL SHARP EDGES		.018 x 48" OR .018R		2. DIMENSIONAL LIMITS APPLY		AFTER PLATING		3. INTERPRET DIM AND TOL PER		ASME Y14.6M-2009	USED ON MODEL		AGUSTA AW139		SCALE	DATE	1:1	4/23/2010
MAT'L	UNLESS OTHERWISE SPECIFIED																														
FINISH	DIMENSIONS ARE IN INCHES																														
SPEC	XXX $\pm .005$ FRACTIONS $\pm 1/8$																														
	.XX $\pm .01$ ANGLES $\pm .6^\circ$																														
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	3. INTERPRET DIM AND TOL PER																														
	ASME Y14.6M-2009																														
USED ON MODEL																															
AGUSTA AW139																															
SCALE	DATE																														
1:1	4/23/2010																														

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
	X		-1	1	SOLDER ASSY.			2
	1		-3		FLARED FITTING, 37"	316 S.S.	7/16-20 FOR 1/4 OD TUBE (MCMASTER-CARR #50715K522) MODIFIED	3
	1		-5		TUBE	304 S.S.		4
	1		-7		FITTING, THUMB NUT		(AIRCRAFT SPRUCE #06-11700 SCHRADER #6116) MODIFIED	2
			-7A	1	FITTING, HEX NUT		PART OF -7	1
		B/O	-9	1	GASKET	HARD FIBER	(AIRCRAFT SPRUCE #SK2043-5)	1
	ASSY -1							

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REVISIONS							
REV	ECR	DESCRIPTION			DATE	INITIAL	APPROVED

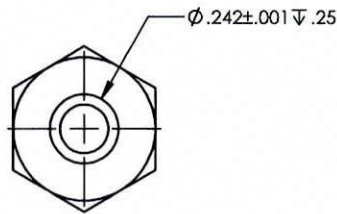


(1)
SOLDER ASSY.

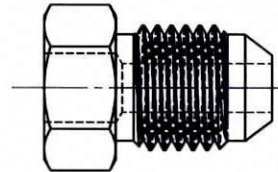
DART AEROSPACE	
TITLE: ADAPTER, L/G SHOCKSTRUTS NITROGEN CHARGE	
DWG NO. RBW109-3501-08-115-1	REV 3
MAT'L _____ FINISH _____ SPEC _____	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 8° .X ± .1 SURFACES = 125/✓ 1. BREAK ALL SHARP EDGES .015 x 45° OR .016R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.6M-2009	
DRAWN BY: PERRITT CHECKED: DUERFELDT OPFS APPR: ANDERSON QA APPR: LINDSAY APPROVED: GILBERT	
USED ON MODEL AGUSTA AW139	
SCALE 1:1	DATE 4/23/2010 SHEET 2 OF 4

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
3	16-0208	-3 CH'D DIM WAS $\phi .24 \pm .001$ IS $\phi .242 \pm .001 \pm .25$.	11/2/2016	RJC	JAG



HIDDEN LINES OMITTED
FOR CLARITY

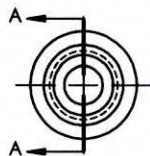
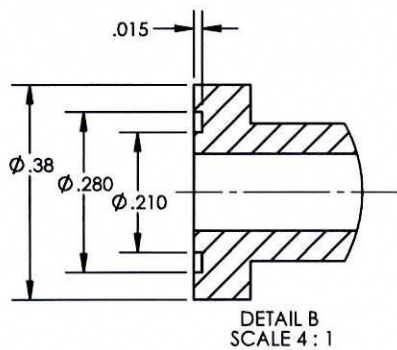


(-3)

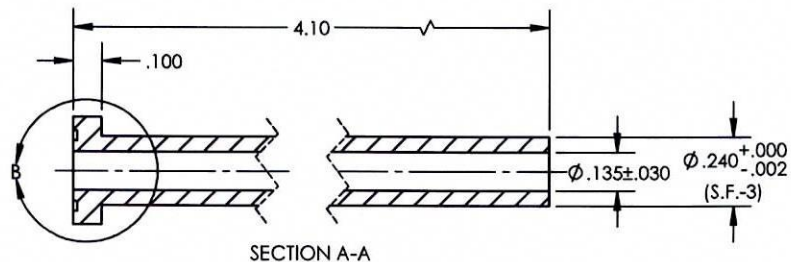
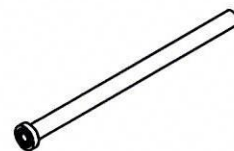
FLARED FITTING, 37°

DART AEROSPACE	
TITLE ADAPTER, L/G SHOCKSTRUTS NITROGEN CHARGE	
DWG NO. RBW109-3501-08-115-3	REV 3
MAT'L 316 S.S.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
REAT	.XXX $\pm .005$ FRACTIONS $\pm 1/8$
FINISH	.XX $\pm .01$ ANGLES $\pm .5^\circ$
SPEC	.X $\pm .1$ SURFACES = 125 ☒
DRAWN BY: PERRITT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	AGUSTA AW139
SCALE 2:1	DATE 4/23/2010
SHEET 3 OF 4	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		+5 CHD TUBE DIMENSIONS, WAS $\phi .180/\phi .250$, IS $\phi .210/\phi .280$.	9/14/2010	WP	DW
2		+5 CHD MATERIAL FROM BRASS TO 303/304, ADDED EXTRA GASKET RELIEF.	9/20/2010	WP	DW
A2		+5 CHD ID FROM $\phi .115$ TO $\phi .156$.	6/26/2012	JAG	SE
3	16-0206	+5 CHD DIM'S WAS $\phi .156$ IS $\phi .135 \pm .030$, WAS $\phi .240$ (S.F. -3) IS $\phi .240 + .000/- .002$ (S.F. -3), WAS $\phi .375$ IS $\phi .38$.	11/2/2016	RJC	JAG



DART AEROSPACE	
TITLE: ADAPTER, L/G SHOCKSTRUTS NITROGEN CHARGE	
DWG NO.: RBW109-3501-08-115-5	REV: 3
MAT'L: 304 S.S.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
FINISH: .005	.XXX $\pm$.005 FRACTIONS $\pm$ 1/8
SPEC: .01	.XX $\pm$.01 ANGLES $\pm$.5°
	.X $\pm$.1 SURFACES = 125/✓
DRAWN BY: PERRITT	1. BREAK ALL SHARP EDGES .016 x 45° OR .016R
CHECKED: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	AGUSTA AW139
SCALE: 2:1	DATE: 4/23/2010 SHEET 4 OF 4

(-5)
TUBE



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO039635**

Supplier: WEJ001-VC
Wejay Machine Products Co. Ltd
600 O'Connor Drive
Kingston
ON
K7P 1N3 Canada
Phone: 613-384-1662
Fax: 613-384-2997

PO No: PO039635

PO Date: 4/18/18

Due Date: 5/14/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

E-MAILED
APR 18 2018

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pynt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Part	Supplier Part No	Item No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	RBW109-3501-08-115P			Adapter, Landing Gear Shockstruts Nitrogen Change As Per Dwg RBW109-3501-08-115 Rev. 3 wo 176140	Firmed	5/14/18	3 Ea	0 Ea	3 Ea	\$498.00/Ea	\$1,494.00
											AT 186407
											38
											9-82
											Grand Total: \$1,494.00

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Procurement Quality Clauses

- A005 RIGHT OF ENTRY
- A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)
- A012 CHEMICAL AND PHYSICAL TEST REPORTS
- A016 PERSONNEL QUALIFICATION
- A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
- A026 CERTIFICATION OF MATERIAL CONFORMANCE
- A041 QUALITY MANAGEMENT SYSTEM
- A042 DART NOTIFICATION BY SUPPLIER
- A043 RETENTION OF QUALITY DOCUMENT
- A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM
- A049 SUPPLIER AWARENESS

CL
PL

Plex 4/18/18 8:48 AM dart.lavoie.chantal



600 O'CONNOR DRIVE, KINGSTON, ONTARIO K7P 1N3

PHONE: (613) 384-1662

FAX: (613) 384-2997

CERTIFICATE OF COMPLIANCE

CUSTOMER: Dart Aerospace

DATE: April 26, 2018

P.O.# 039635

WEJAY JOB# 39084

I hereby certify that the following material has been inspected/tested and conforms to the requirements and specifications as stated in your contract and as noted below.

PART NO.	QTY.	PROCESS (ES)	SPECIFICATION / REV
RBW109-3501-08-115 'Adapter ass'y, Landing Gear Shockstruts, Nitrogen Charge'	3	Machined/ Fabricated complete per drawing req'ts.	RBW109-3501-08-11 Rev. 3

Note: For part# -5 (316 S.S.), Material Test Cert attached - ref. 'Crystal Palace' Heat# 11M201 (TN#34007-1).
- rel. part# -7 & -7A, Manufacturer C of C attached - ref. 'Haltec Corp. Order# 12776 (TN# 34010-2).
- rel. part# -3, McMaster Carr Spec. Sheet attached (Wejay TN# 34009-1).

Records of Inspection/Test will be retained for 5 years minimum.

Sincerely,

Clifford Smith

Authorized Q.A. Signatory



SHANGHAI CRYSTAL PALACE PIPE CO., LTD

LAO GANG, PUDONG NEW AREA DISTRICT, SHANGHAI, CHINA

MATERIAL TEST CERTIFICATE

ISO9001:2008 ; PED Material CERTIFICATE (No.: QAC0021058/A)

DATE OF ISSUE: 2017/09/04

7N34007-1
Job # 39059
Rec'd Apr 3/18

CUSTOMER: TIAN JIN SHENG GONG INTERNATIONAL CO., LTD						CERTIFICATE NO.: 2017-5-8-18						
P.O.NO.: SC-17044/92678						ORDER NO.: 2017-05-008						
COMMODITY: STAINLESS STEEL SEAMLESS TUBING						GRADE: ASTM A213-13 TP316/316L						
CONDITION: COLD FINISH / SOLUTION TREATED / PICKLED / PLAIN END / OD POLISHED 320 GRIT.						HEAT NO.: 11M201						
CHEMICAL CONTENTS (WT%)												
ELEMENTS	C	Mn	P	S	Si	Ni	Cr	Mo				
SPECIFICATION	≤ 0.035	≤ 2.00	≤ 0.045	≤ 0.030	≤ 1.00	10.0~14.0	16.0~18.0	2.00~3.00				
RESULTS (LADLE)	0.022	0.90	0.033	0.001	0.40	10.10	16.18	2.14				
PHYSICAL PROPERTIES												
Dimensions			Bundle No.	Pieces	Weight (kg)	0.2%YS (Mpa) ≥ 205	TS (Mpa) ≥ 515	EL (%) ≥ 35	FLARING TEST	FLATTENING TEST	HARDNESS HRB ≤ 80	EDDY CURRENT TEST TO ASTM E426 (100%)
O.D (inch)	W.T (inch)	Length (feet)										
1/4	0.020	20	G17-5-116	100	45	355	620	54.0	OK	OK	77	OK
3/8	0.035	20	G17-5-153	2500	2933	335	665	63.0	OK	OK	77	OK
3/8	0.120	20	G17-8-27	25	75	280	585	61.5	OK	OK	74	OK
REMARKS:						1. WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND THE TEST RESULTS ARE IN COMPLIANCE WITH THE TERMS OF THE PURCHASE ORDER OR CONTRACT						
AS PER A/SA-213-13 A-269-13						2. THE CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE COMPANY.						
IN COMPLIANCE TO NACE MR0175-2015/ISO 15156						SHANGHAI CRYSTAL PALACE PIPE CO., LTD						
SOLUTION HEAT TREATMENT : 1050°C X 1.5m/min						MANAGER OF QUALITY ASSURANCE DEPARTMENT / DING WEI-GUO						
NO WELD REPAIR WAS PERFORMED												
FREE FROM MERCURY CONTAMINATION												
FREE FROM RADIATION CONTAMINATION												
IC TESTING ACCORDANCE TO ASTM A262 E - SATISFACTORY Reference Discontinuity - HOLES												
COUNTRY OF ORIGIN: CHINA												
PMI TESTING DONE.												
MATERIAL TEST CERTIFICATE TO EN 10204/3.1												
IN COMPLIANCE TO NACE MR0103-2007												

REF: DART AEROSPACE Po# 39419

DRAWING# RBW109-3501-08-115-5 MTR: REF# T24918 - Line# 5 - Stock Code: 316LTS0375120 - Heat# 11M201 - Ship# 2 - PO# 0000034007

REV. 3

PART NAME: ADAPTOR, L/G SHOCK STRUTS NITROGEN CHARGE.



CERTIFICATE OF COMPLIANCE

(Exhibit H)

DATE: JANUARY 26, 2018

VENDOR: Haltec Corporation

P. O. Box 1180
32585 North Price RD
Salem, OH 44460

CUSTOMER: M.L. BERNIE CO

GARDENA, CA

Cust. Order # 12776
P/O Date: 01-24-18

Sales Order No. 482025

PART NO.	HALTEC PART	QUANTITY	DRAWING NO.	REV.
<u>H-6116B</u>	<u>H-6116B</u>	<u>300</u>	<u>H-6116B</u>	

ADDITIONAL COMMENTS:

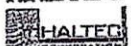
HALTEC CORPORATION'S QUALITY SYSTEM
IS APPROVED TO ISO-9001-2008 w/design

Reg # 99.053.2

We certify that the above listed products were shipped on the above listed P.O. reference in conformance to specifications and referenced drawings as listed in the table above.

Brian L Bostick

Brian L. Bostick
Manager of Quality Assurance
Six Sigma BB
HALTEC CORPORATION



REF: DART AEROSPACE PO #39419

DRAWING # RBW 109-3501-08-115 REV.3

PART # -7 AND -7A

TN34010-2
Job # 39059
Rec'd Apr. 3/18

McMASTER-CARR.

Plug for 1/4" Tube OD 37 Degree Flared Fitting for Stainless Steel Tubing

\$6.92 Each
50715K522

For Use With	Air, Isopropyl Alcohol, Natural Gas, Phosphoric Acid, Water
Shape	Cap/Plug
Type	Plug
Tube Connection	
Type	37° Flared
For Tube OD	1/4"
Thread Size	7/16"-20
Thread Type	UNF
Gender	Male
Material	316 Stainless Steel
Maximum Pressure	Not Rated
Maximum Vacuum	Not Rated
Temperature Range	-420° to 1200° F
For Tube	
Material	304 Stainless Steel, 316 Stainless Steel
Fabrication	Welded, Seamless
Specifications Met	ASTM A213, ASTM A249, ASTM A269
Specifications Met	ISO 8434, JIC, SAE J514
RoHS	Compliant

Achieve a tight metal-to-metal seal with these flared fittings. Also known as JIC (Joint Industrial Council) fittings, they connect to tubing that has been flared to 37°. Fittings are 316 stainless steel for excellent corrosion resistance.

Fittings without swivel nut require a nut and a sleeve (ferrule) for each tube end.

6.92

REF. DART AEROSPACE P.O.#39419
DRAWING #RBW109-3501-08-115 REV.3
PART #3

TN#34009-1